WHAT IS CLAIMED IS:

1. An ink jet print head comprising a plurality of nozzles for controlled formation and release of ink drops for printing, wherein each nozzle is associated with a local ink storage reservoir for replenishment of said nozzle with ink.

2. The ink jet print head of claim 1, configured as a cylinder and mounted to rotate with an angular velocity selected to coincide with that of a print medium being fed thereabout.

3. The ink jet print head of claim 2, comprising an axial ink storage reservoir.

4. The ink jet print head of claim 3, wherein said local ink storage reservoirs and nozzles are configured to allow centripetal force to feed ink from said axial reservoir, through said local storage reservoirs to said nozzles.

5. The ink jet print head of claim 3, further comprising a static wiper located to wipe ink from said axial ink storage reservoir towards said nozzles.

6. The ink jet print head of claim 1, wherein said local ink storage reservoir is subject to environmental pressure.

7. The ink jet print head of claim 1, wherein said reservoir is dimensioned to allow capillary action to drive ink supplied to said reservoir to cross said reservoir to said nozzle.

8. The ink jet print head of claim 1, comprising a feed neck between said nozzle and said reservoir, said feed neck being dimensioned to allow capillary action to drive ink supplied to said reservoir to cross said reservoir to said nozzle.

9. The ink jet print head of claim 1, wherein said nozzle and said reservoir are dimensioned to allow capillary action to drive ink supplied to said reservoir to cross said reservoir to said nozzle.

10. The ink jet print head of claim 1, wherein respective local reservoirs have an axial direction and an outer contour in said axial direction whose shape is selected by solving an equation of capillary force against weight for ink in the reservoir, thereby to construct a reservoir wherein a pressure of ink at the nozzle is substantially independent of a current depth of the ink.

11. The ink jet print head of claim 1, wherein each one of said plurality of nozzles is arranged with its own respective local ink storage reservoir.

12. The ink jet print head of claim 11, wherein said local ink storage reservoir is connected via a neck to a respective nozzle.

13. The ink jet print head of claim 1, wherein said local ink storage reservoir is a channel inserted into said print head.

14. The ink jet print head of claim 13, wherein said channel is aligned to supply ink to a row of said nozzles.

15. The ink jet print head of claim 14, wherein there is provided a plurality of said channels, one for each row of said nozzles, the print head further comprising a plurality of color ink supply ducts, each of said color ink supply ducts connected to different ones of said channels, thereby to enable single pass color printing from said print head.

16. The ink jet print head of claim 1, wherein said plurality of nozzles are arranged into a plurality of rows, and said local ink storage reservoirs comprise channels inserted into said print head to supply each of said rows.

17. The ink jet print head of claim 16, further comprising a plurality of color ink supply ducts, each of said color ink supply ducts connected to different ones of said channels, thereby to enable single pass color printing from said print head.

18. The ink jet print head of claim 1, wherein said plurality of nozzles is arranged into a substantially rectangular printing area dimensioned to give simultaneous printing coverage of standard sized printing media.

19. The ink jet print head of claim 18, arranged for printing on said standard sized printing media during a period of unchanged relative displacement between said print head and said printing media.

20. The ink jet printing head of claim 19, wherein each of said plurality of nozzles has an ink release mechanism, and wherein said ink expulsion mechanism is controllable using pulses to provide different ink quantities to said print medium.

21. The ink jet printing head of claim 19, wherein each of said plurality of nozzles has an ink expulsion mechanism, and wherein said ink expulsion mechanism is controllable using pulses to provide different drop sizes to said print medium.

22. The ink jet printing mechanism of claim 19, further comprising a perturbation mechanism for introducing a relative perturbation between the print head and the print medium, said perturbation being smaller than a pixel density of said print head.

23. The ink jet printing mechanism of claim 19, further comprising a perturbation mechanism for introducing a relative perturbation between the print head and the print medium, said perturbation being larger than a pixel density of said print head.

24. The ink jet print head of claim 11, wherein said nozzles and said local ink reservoirs are arranged within a print head matrix, said matrix having a printing

surface comprising nozzle outlets and an ink supply surface opposite said print supply surface comprising inlets to said local ink reservoirs.

25. The ink jet print head of claim 24, further comprising an ink distribution device associated with said ink supply surface for distributing ink to reach said local ink reservoirs.

26. The ink jet print head of claim 25, wherein said ink distribution device is a wiper for wiping ink over said ink supply surface.

27. The ink jet printer of claim 25, wherein said ink distribution device is a brush for brushing ink over said ink supply surface.

28. The ink jet printer of claim 25, wherein said ink distribution device is a sponge for sponging ink over said ink supply surface.

29. The ink jet print head of claim 25, wherein said ink distribution device is a spray device for spraying ink over said ink supply surface.

30. The ink jet print head of claim 25, wherein said ink distribution device is an atmospheric pressure ink distribution device.

31. The ink jet print head of claim 25, wherein said ink distribution device is a tubeless distribution device.

32. The ink jet print head of claim 1, wherein each nozzle has an ink ejection device for controllably releasing ink from said nozzle, said ink ejection devices being connected to a matrix addressing arrangement for control thereof.

33. The ink jet print head of claim 32, wherein said ejection devices are controllable via said matrix addressing arrangement to release quantities of ink for full and half tone printing dots.

34. The ink jet print head of claim 33, wherein said ejection devices are controllable to print successive half tone dots at a single printing position to aggregate to a predetermined tone level.

35. The ink jet print head of claim 1, comprising an ejection device which is controllable to select successive rows in a scan of said matrix and to eject a maximum of one ink drop per nozzle per row selection, and to rescan said matrix until a required number of dots have been ejected from all rows.

36. The ink jet print head of claim 35, configured to carry out replenishment of ink in respective rows during continuation of a respective scan in parallel with selection of another row.

37. The ink jet print head of claim 35, configured to such that said selecting of successive rows comprises selecting in a logical order.

38. An ink jet print head comprising a print head matrix, the matrix having a plurality of nozzles for bubble formation and expulsion opening onto a print side surface of said matrix and a plurality of local reservoirs, associated with respective ones of said nozzles, opening onto an ink supply surface of said matrix.

39. The ink jet print head of claim 38, wherein each one of said plurality of nozzles is arranged with its own respective local ink storage reservoir.

40. The ink jet print head of claim 38, wherein said matrix is arranged into a substantially rectangular printing area dimensioned to give simultaneous printing coverage of standard sized printing media.

41. The ink jet print head of claim 40, arranged for printing on said standard sized printing media during a period of unchanged relative displacement between said print head and said printing media.

42. The ink jet print head of claim 38, wherein said print side surface and said ink supply surface are respectively opposite sides of said matrix.

43. The ink jet print head of claim 38, further comprising an ink distribution device associated with said ink supply surface for distributing ink to reach said local ink reservoirs.

44. The ink jet print head of claim 43, wherein said ink distribution device is a wiper for wiping ink over said ink supply surface.

45. The ink jet print head of claim 43, wherein said ink distribution device is a spray device for spraying ink over said ink supply surface.

46. The ink jet print head of claim 43, wherein said ink distribution device is an atmospheric pressure ink distribution device.

47. The ink jet print head of claim 43, wherein said ink distribution device is a tubeless distribution device.

48. Apparatus for supplying ink to ink jet nozzles, comprising:

an ink supply surface,

micro-reservoirs associated with local ones of said nozzles and open to said ink supply surface, and

an ink distribution device for distribution of said ink over said ink supply surface to enter said micro-reservoirs by capillary action.

49. The apparatus of claim 48, wherein each one of said plurality of nozzles is arranged with its own respective micro-reservoir.

50. The apparatus of claim 48, wherein said plurality of nozzles is arranged into a substantially rectangular printing area dimensioned to give simultaneous printing coverage of standard sized printing media.

51. The apparatus of claim 50, arranged for printing on said standard sized printing media during a period of unchanged relative displacement between said print head and said printing media.

52. The apparatus of claim 49, wherein said nozzles and said micro-reservoirs are arranged within a print head matrix, said matrix having a printing surface comprising nozzle outlets and said ink supply surface is opposite said print supply surface and comprises inlets to said micro-reservoirs.

53. The apparatus of claim 48, wherein said ink distribution device is a wiper for wiping ink over said ink supply surface.

54. The apparatus of claim 48, wherein said ink distribution device is a brush for brushing ink over said ink supply surface.

55. The apparatus of claim 48, wherein said ink distribution device is a sponge for sponging ink over said ink supply surface.

56. The apparatus of claim 48, wherein said ink distribution device is a spray device for spraying ink over said ink supply surface.

57. The apparatus of claim 48, wherein said ink distribution device is an atmospheric pressure ink distribution device.

58. The apparatus of claim 48, wherein said ink distribution device is a tubeless distribution device.

59. An ink jet printing head comprising a plurality of nozzles for forming and expelling ink droplets for printing onto a print medium, wherein the plurality of nozzles is arranged into a two dimensional grid substantially to be coextensive with a standard size print medium.

60. A method of ink jet printing comprising:

providing a print head having a predetermined density of nozzles over an area substantially equal to a printing area of a print medium, each of said nozzles being associated with a local micro-reservoir for ink replenishment, and

whilst retaining a static relationship between said print head and said print medium, expelling ink from said nozzles towards a print medium to print over substantially all of said printing area.

61. The method of claim 60, further comprising distributing ink over an ink supply surface of said print head, said ink supply surface having openings to each of said micro-reservoirs such as to allow said distributed ink to enter said micro-reservoirs by capillary action.

62. The method of claim 60, wherein said retaining said static relationship comprises carrying out said simultaneously expelling ink over a duration of unchanged relative displacement between said print head and said print medium.

63. The method of claim 60, comprising repeating said stage of expelling ink a plurality of times, for each repetition tilting said print head by a predetermined angle.

64. A method of manufacture of a print head for ink jet printing comprising:

providing a matrix material having two major planar surfaces,

introducing nozzles into said matrix having outlets to a first of said major planar surfaces,

introducing micro-reservoirs into said matrix, each micro-reservoir having a first opening into a corresponding nozzle and an inlet towards a second of said major planar surfaces.

65. The method of claim 64, further comprising providing an ink delivery system for spreading ink over said second planar surface in a quantity suitable for entering via capillary action into said micro-reservoirs.

66. The method of claim 65, wherein said ink delivery system comprises a wiper for wiping ink over said second planar surface.

67. The method of claim 65, wherein said ink delivery system comprises a spray unit for spraying ink over said second planar surface.

68. The method of claim 64, wherein said matrix has dimensions substantially to provide coverage over a standard size of printing media.

69. The method of claim 64, wherein said nozzles are introduced over a region of said matrix sized to provide printing coverage over a standard size of printing media.

70. A method of manufacture of an ink-jet printer comprising:

mounting in static manner a print head arranged with nozzles covering an area of a standard size of printing media, and

mounting a print media delivery system configured to deliver print media to the vicinity of the print head and to retain the print media in a stationary mode in said vicinity for printing by said print head.

71. Ink jet print apparatus comprising a matrix print head having a two-dimensional array of nozzles and a feed apparatus for feeding a print medium to said matrix print head such that said print medium is held relatively stationary to said matrix print head.

72. Apparatus according to claim 71 further comprising an enclosure arranged such that said matrix print head and a corresponding print region are located within an enclosed area.

73. Apparatus according to claim 71, wherein said enclosed area comprises a closable first feed slit for allowing feeding of print media.

74. Apparatus according to claim 73, wherein said enclosed area comprises a closable second feed slit for allowing onward feeding of said print media.

75. Apparatus according to claim 73, wherein said closable first feed slit is configured to be open during printing and closed otherwise.

76. Apparatus according to claim 75, comprising a sealable closure for carrying out said closing.

77. Apparatus according to claim 73, configured so as to print a sheet prior to being shut down and to retain the sheet within the enclosed area so as substantially bring about saturation within said area thereby to reduce drying.

78. Apparatus according to claim 77, configured so as to carry out a primary printing of said sheet prior to a printing session.

79. Apparatus according to claim 71, further comprising a maintenance wiper for maintaining a nozzle surface of said printing head.